Disclosure of the Abstract

It is an object of the invention to provide an inexpensive double-pipe heat exchanger having high performance and comprising an inner pipe and an outer pipe which constitute a double pipe without adding a heat-transfer facilitating material such as an inner fin. In the double-pipe heat exchanger having the inner pipe and the outer pipe, the outer pipe is dented from its outside toward its inside, thereby forming a plurality of projections which are dented toward the inner pipe. Examples of shapes of the projection are substantially conical shape, substantially truncated shape, substantially spherical surface shape, substantially cylindrical shape, substantially elliptic cylindrical shape and the like. The projections are disposed helically or in a staggered configuration such as to surround the inner pipe. With this structure, only by subjecting the outer pipe to simple working such as press working, it is possible to increase the turbulent flow of fluid flowing between the inner pipe and the outer pipe, and to facilitate heat transfer from fluid flowing in the inner pipe to fluid flowing between the inner pipe and the outer pipe.